

HoxC10 siRNA (m): sc-44811

BACKGROUND

The Hox proteins play a role in development and cellular differentiation by regulating downstream target genes. Specifically, the Hox proteins direct DNA-protein and protein-protein interactions that assist in determining the morphologic features associated with the anterior-posterior body axis. Hox proteins are involved in controlling axial patterning, leukemias and hereditary malformations. HoxC10 oscillates in abundance during the cell cycle, being targeted for degradation early in mitosis by the ubiquitin-dependent proteasome pathway. HoxC10 is a homeoprotein with the potential to influence mitotic progression and might provide a link between developmental regulation and cell cycle control.

REFERENCES

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6. Chen, K.N., et al. 2005. Expression of 11 HOX genes is deregulated in esophageal squamous cell carcinoma. *Clin. Cancer Res.* 11: 1044-1049.
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8. Ramachandran, S., et al. 2005. Loss of HOXC6 expression induces apoptosis in prostate cancer cells. *Oncogene* 24: 188-198.
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CHROMOSOMAL LOCATION

Genetic locus: Hoxc10 (mouse) mapping to 15 F3.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

HoxC10 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HoxC10 shRNA Plasmid (m): sc-44811-SH and HoxC10 shRNA (m) Lentiviral Particles: sc-44811-V as alternate gene silencing products.

For independent verification of HoxC10 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-44811A, sc-44811B and sc-44811C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

HoxC10 siRNA (m) is recommended for the inhibition of HoxC10 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor HoxC10 gene expression knockdown using RT-PCR Primer: HoxC10 (m)-PR: sc-44811-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.